



Stem Cell Factor (SCF) Canine, E. coli Recombinant Protein

Product Data Sheet

Cat. No.:	A31940002	A31940010	A31941000
Size:	2 µg	10 µg	1 mg

Description:

Our bioactive *Stem Cell Factor (SCF) Canine, E. coli Recombinant Protein* is a single, non-glycosylated polypeptide chain containing 165 amino acids and has a molecular mass of 18.4 kDa. The SCF is purified by proprietary chromatographic techniques.

Summary:

Stem cell factor (SCF), also known as KIT ligand, binds to the receptor-type protein-tyrosine kinase KIT (CD117). This pleiotropic cytokine plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. SCF exists in both a soluble and a transmembrane isoform. SCF is commonly used in cell cultures *in vitro* to promote expansion of primitive hematopoietic stem cells and multi-potent progenitor cells.

Other Names:

Canine SCF, Dog SCF, Canine KIT ligand, c-Kit ligand, KITLG, KL, KL-1, KITL, mast cell growth factor, MGF, Steel factor, SF

Source:

E. coli

Purity:

Greater than 97.0% as determined by HPLC and SDS-PAGE.

Physical Appearance:

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

update.: 052022

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**Reconstitution:**

It is recommended to reconstitute the lyophilized Stem Cell Factor in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Biological Activity:

Fully biologically active when compared to standard. The ED₅₀ as calculated by the dose-dependent stimulation of the proliferation of human TF-1 cells is less than 2.0 ng/ml, corresponding to a specific activity of 5,000,000 IU/mg.

Amino Acid Sequence:

KGICGKRVTD DVKDVTKLVA NLPKDYKIAL KYVPGMDVLP SHCWISVMVE QLSVSLTDLL DKFSNISEGL
SNYSIIDKLV KIVDDLVECT EGYSFENVKK APKSPELRLF TPEEFFRIFN RSIDAFKDLE TVASKSSECV
VSSTLSPDKD SRVSVTKPFM LPPVA

Shipping:

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Stability:

Lyophilized SCF, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution, SCF should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Please prevent freeze-thaw cycles.**

Usage:

This product is intended for **Laboratory Research Use Only**. This product may not be used as a pharmaceutical or veterinary drug, agricultural product, or food additive.

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